



# PRODUCT SPECIFICATION

**Model No : CSM-57131T9/CSM-57141T9**

| Descriptions:   |
|---|
| <ul style="list-style-type: none"> <li>• 1.2Inch Dot-Matrix Display</li> <li>• 5*7 Array with X-Y Select.</li> <li>• CSM-57131: Column Anode, Row Cathode</li> <li>• CSM-57141: Column Cathode, Row Anode</li> <li>• Emitting Color: Super-Bright Yellow</li> </ul> |



| CUSTOMER APPROVED<br>SIGNATURES | APPROVED BY | CHECKED BY | PREPARED BY |
|---------------------------------|-------------|------------|-------------|
|                                 |             |            |             |

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**Model No : CSM-57131T9/CSM-57141T9**

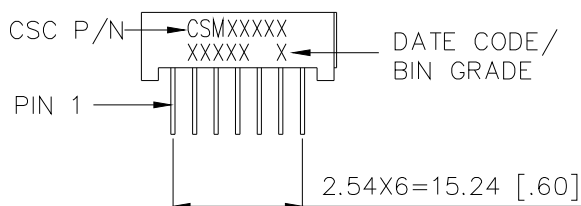
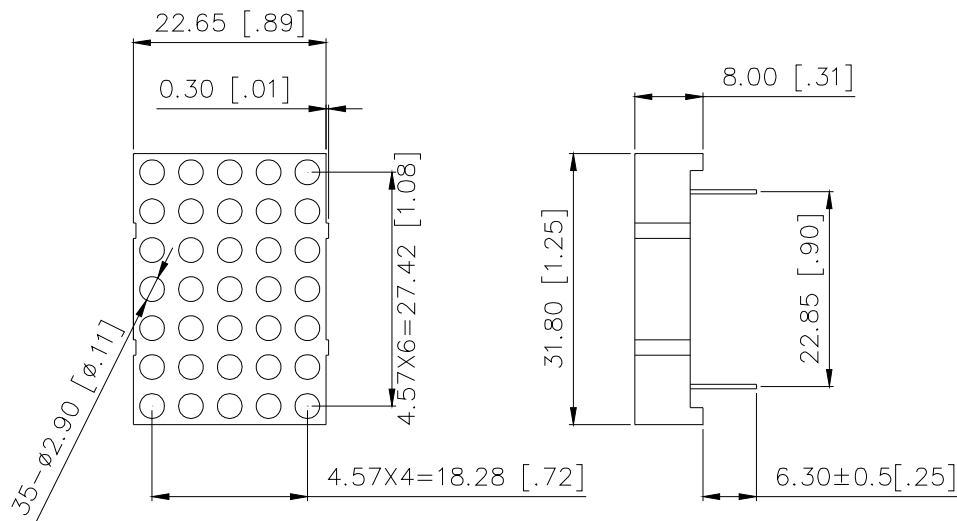
**■ Features -**

1. 1.2 inch (30.3mm) Matrix height.
2. Case mold type.
3. RoHS compliant.
4. Low power consumption.
5. Easy mounting on P.C. board or socket.

**■ Device Selection Guide -**

| Part No.    | Chip     |                     | Description |         |
|-------------|----------|---------------------|-------------|---------|
|             | Material | Emitted Color       | Column      | Row     |
| CSM-57131T9 | AlGaInP  | Super-Bright Yellow | Anode       | Cathode |
| CSM-57141T9 |          |                     | Cathode     | Anode   |

**■ Package Dimensions -**



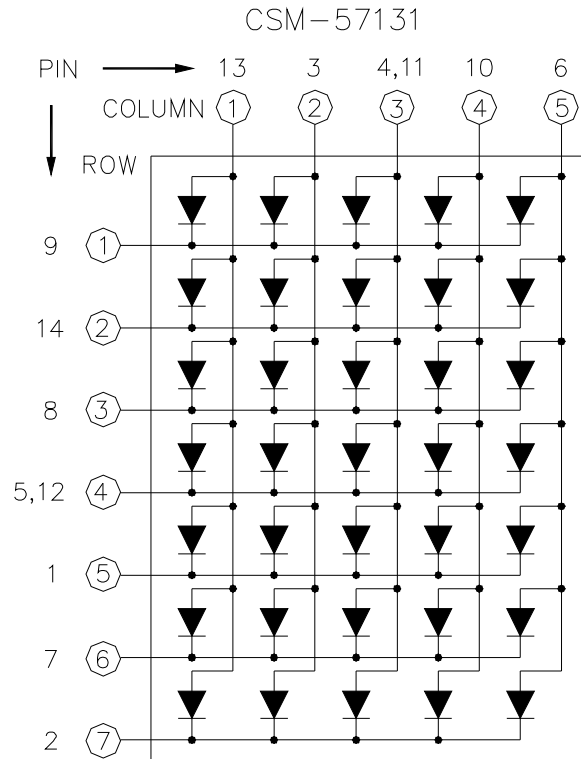
**NOTE:**

- 1 All pins are  $\phi$ 0.5(.02).
- 2 Dimension in millimeters (inch), tolerance is  $\pm$ 0.25 (.01) unless otherwise noted.



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**Internal Circuit Diagrams -**



| CSM-57131 |                | CSM-57141 |                |
|-----------|----------------|-----------|----------------|
| PIN NO.   | FUNCTION       | PIN NO.   | FUNCTION       |
| 1         | Cathode Row 5  | 8         | Cathode Row 3  |
| 2         | Cathode Row 7  | 9         | Cathode Row 1  |
| 3         | Anode Column 2 | 10        | Anode Column 4 |
| 4         | Anode Column 3 | 11        | Anode Column 3 |
| 5         | Cathode Row 4  | 12        | Cathode Row 4  |
| 6         | Anode Column 5 | 13        | Anode Column 1 |
| 7         | Cathode Row 6  | 14        | Cathode Row 2  |



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■ Absolute Maximum Rating -

(Ta=25°C)

| Parameter   | Symbol           | Rating    | Unit  |
|---|------------------|-----------|-------|
| Power Dissipation Per Dice  | P <sub>AD</sub>  | 70        | mW    |
| Continuous Forward Current Per Dice                                     | I <sub>AF</sub>  | 25        | mA    |
| Peak Current Per Dice(duty cycle 1/10, 1kHz)                            | I <sub>PF</sub>  | 90        | mA    |
| Derating Linear From 25°C Per Dice                                      | -                | 0.33      | mA/°C |
| Reverse Voltage Per Dice  | V <sub>R</sub>   | 5         | V     |
| Operating Temp.   | T <sub>opr</sub> | -35 ~ +85 | °C    |
| Storage Temp.   | T <sub>stg</sub> | -35 ~ +85 | °C    |
| Solder temperature 1/16 inch below seating plane for 3 seconds at 260°C |                  |           |       |

■ Electro-optical Characteristics -

(Ta=25°C)

| Parameter                         | Symbol           | Min. | Typ. | Max. | Unit | Condition                        |
|-----------------------------------|------------------|------|------|------|------|----------------------------------|
| Forward Voltage Per Segment       | V <sub>F</sub>   | -    | 2.1  | 2.8  | V    | I <sub>F</sub> =20mA             |
| Luminous Intensity Per Segment    | I <sub>v</sub>   | -    | 20   | -    | mcd  | I <sub>F</sub> =10mA             |
| Peak Emission Wavelength          | λ <sub>p</sub>   | -    | 592  | -    | nm   | I <sub>F</sub> =20mA             |
| Dominant Wavelength               | λ <sub>d</sub>   | -    | 590  | -    | nm   | I <sub>F</sub> =20mA             |
| Spectrum Radiation Bandwidth      | Δλ               | -    | 20   | -    | nm   | I <sub>F</sub> =20mA             |
| Reverse Current                   | I <sub>R</sub>   | -    | -    | 100  | μA   | V <sub>R</sub> =5V               |
| Luminous Intensity Matching Ratio | I <sub>V-m</sub> | -    | -    | 2:1  | -    | I <sub>p</sub> =80mA<br>1/16Duty |



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■ Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

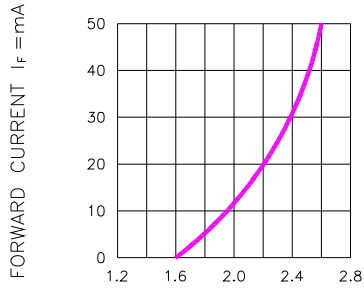


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

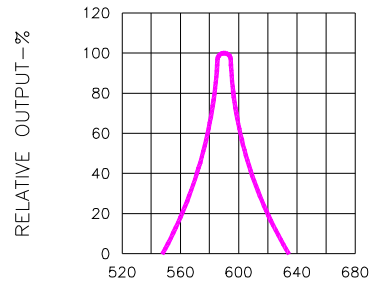


Fig.2 SPECTRAL RESPONSE

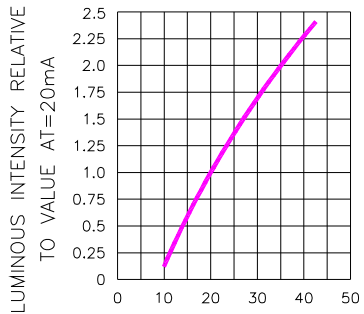


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

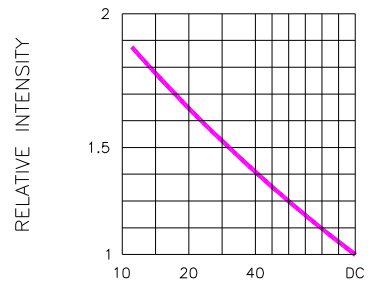


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

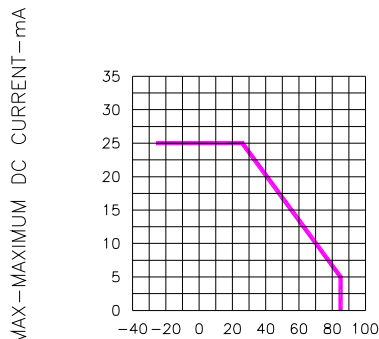


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

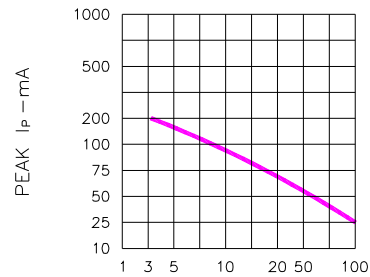


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)

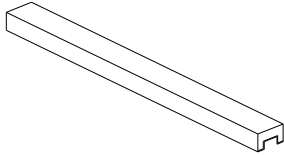


|           |            |
|-----------|------------|
| Spec. No. | PS-ND-0710 |
| Rev.      | A          |

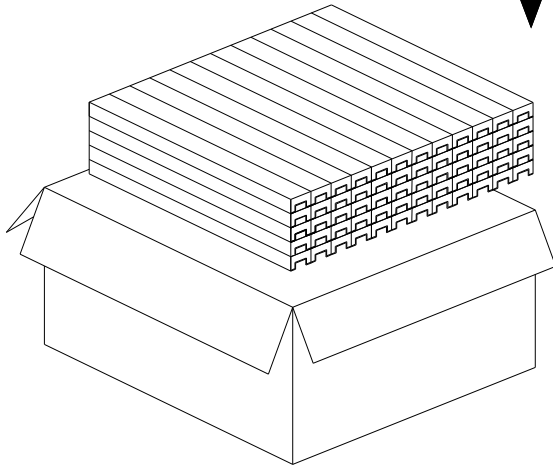
Model No: CSM-57131T9/CSM-57141T9

■ Package Dimensions

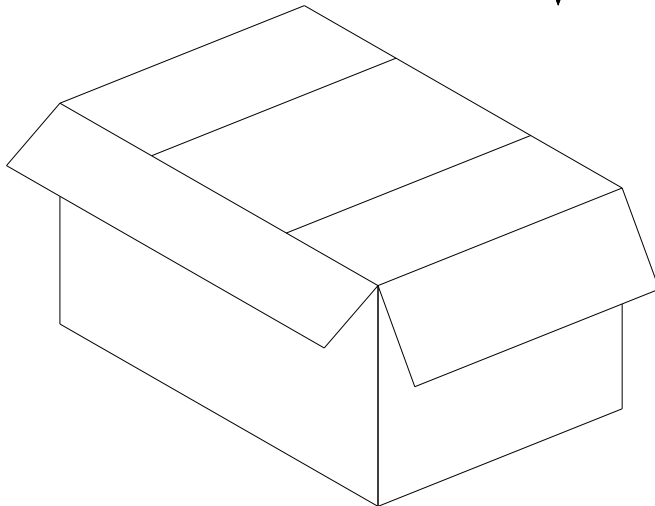
CSM-57131/57141X  
Dot-Matrix Display  
Dice Code



22 Pcs Per Tube



42 Tubes Per Inner Box  
Total Q'TY: 924 Pcs



3 Inner Boxes Per Carton.

Total Q'TY: 2772 Pcs

Carton Size:

L540\*W485\*H305.5 mm

Note: The specifications are subject to change without notice. Please contact us for updated informati